

37505.0281

- 9 -

REMARKS

Claims 1, 2, 4, 7 to 17 and 19 to 27 are pending. No claims are allowed.

1. Claims 1, 2, 4, 7, 8, 12, 16, 17, 19 to 24, 26 and 27 are rejected under 35 USC 103(a) as being unpatentable over Lessar et al. (U.S. Patent No. 6,006,133) in view of Miyazaki et al. (U.S. Patent No. 6,315,801) and Merlin et al. (U.S. Patent No. 5,552,574).

Lessar et al. has been thoroughly discussed in Applicants' prior amendments as relating to an implantable medical device powered by a flat electrolytic capacitor. As described at column 8, line 59 to column 9, line 17, one embodiment of the capacitor comprises at least one anode layer having a registration tab extending from a perimeter thereof, at least one cathode layer having a registration tab extending from a perimeter thereof, and registration tabs for connecting anode sub-assemblies or cathode layers in parallel electrically. However, the registration tabs extending from the perimeters of the anode and cathode layers are for correct alignment or proper relative positioning and not for "registration" of unique information related to a particular capacitor.

Miyazaki et al. relates to a process for producing an electrode plate with a terminal mounting portion and/or an identification mark. As discussed at column 6, lines 55 to 63, the process includes "the steps of applying an electrode forming composition composed of at least an active material and a binder on an entire surface of a collector 2 and then drying the same to thereby form an active material layer 3 and forming

37505.0281

- 10 -

an exposed surface portion of a terminal mounting portion 4, to which a terminal 104 is mounted by partially peeling off the active material layer 3 from an area substantially corresponding to an area to which a terminal 5 is actually mounted."

Miyazaki et al.'s process can also be used to provide identification marks on a current collector. As shown in Fig. 4, a solidifying agent 7 is heat fused and dropped through a suitable mask 6 on the active material 3. The mask 6 has a negative pattern of a pattern which is desired to be impregnated and a masking plate corresponding to a position to be impregnated is cut away. Fig. 6 shows where a portion 3a of the active material layer 6, which is impregnated with the solidifying agent, is peeled off and the remaining active material layer 3 forms a pattern of a desired shape. That way, the identification marks are the remaining "active material coating layer itself or a trimmed portion formed by removing the coating layer into the pattern shape, so that the identification mark cannot adversely affect the performance of the battery after the assembly thereof." For support, see column 4, lines 30 to 34.

Thus, at Fig. 7, the identification marks 8 are made "by forming the active material layer 3 in shape of patterns on the exposed surface of the terminal mounting portion 4" (column 16, lines 15 to 25). Conversely, in Fig. 10, the identification marks 8 are a pattern of circular holes or openings in the active material. So, according to Miyazaki et al. the identification marks 8 can either be a pattern of upstanding columns of active material left behind on the terminal mounting portion 4 as shown in the enlarged view of Fig. 14, which is a

37505.0281

- 11 -

plan view of Fig. 7, or they can be a pattern of holes devoid of active material as in Fig. 10. Furthermore, would not the void spaces between the active material columns of Fig. 14 be the holes shown in Fig. 10?

In any event, this reference does not discuss that the patterned "identification marks" are anything other than manipulation of the active material layer itself. For that reason the Applicants are uncertain regarding the Examiner's assertion that "the information of Miyazaki et al. [can be provided] on the exposed portions of Lessar et al. in order to provide information needed for manufacturing processes and to ensure process control." Does the Examiner mean that patterns of active material can be provided on the "registration tabs" of Lessar et al. to provide information? How can that be? What motivation would one have to modify Lessar et al.'s alignment (registration) tabs to have columns of active material patterned to provide information, or to have active material patterned to have voids configured to convey information. Nonetheless, the Applicants are uncertain how this relates to their claimed invention. As previously discussed, they are claiming the provision of a "unique identification code etched into an exposed portion of the current collector . . ." and columns of active material are not an etching.

In that respect, the Examiner then relies on Merlin et al., which relates to a method for marking the connector of a chip card, bank card, telephone card, and the like, with a laser. The patented "invention provides for: recognizing identification particulars memorized in said chip; marking said identification particulars on the connector; [and] marking the

37505.0281

- 12 -

identification particulars also on the card." As further discussed at column 4, lines 11 to 24 with respect to Fig. 6, "it is possible, by means of sensors 71, 72, to recognize identification particulars to be marked that are recorded electrically in the chip 16 and to transmit them to the microprocessor 60 which, apart from the modulation of the laser L, controls the means 80 for the sweeping of the laser beam 30 along x and y as a function of the particulars received. These identification elements may thus be etched on the metal contacts 12 of the micromodule 10 as well as on the very body of the card 1, thus forming a security means by which the interchanging of the micromodule 10 and the card 1 can be avoided."

Reiterating their position set forth in the amendment filed June 6, 2006 with respect to the combination of Lessar et al. and Merlin et al., the Applicants again state that the use of a unique identification code provided on a metal surface, by laser or otherwise, is not necessarily novel in and of itself. What is novel is its use in an electrochemical cell, and the Miyazaki et al. reference does not fill in the missing piece between the Applicants' claimed invention and the combination of Lessar et al. and Merlin et al. That is because it would not have been obvious to substitute the active material pattern of Miyazaki et al. with etchings on a current collector.

In fact, the Applicants point out that at page 7, line 23 to page 8, line 3 of their specification, that the "ID matrix 62 is preferably etched, such as by a laser, onto the connecting tab 36. This provides the matrix with a smaller footprint than a typical bar code, thus minimizing warping of the current collector due to excessive heat. Etching is also

37505.0281

- 13 -

preferred because it is permanent and will not contaminate the cell as an ink jet marking system might." Now, knowing the basis of the claimed invention, one might come to realize that etched marks would not be susceptible to sloughing or peeling as Miyazaki et al.'s active material patterns might be, but that is not relevant.

In that respect, is the Examiner taking the position that identification marks on a current collector are taught by Miyazaki et al. and no matter how unrelated they are to etched marks, one skilled in the art would, nonetheless, have been lead to Merlin et al.? Such a position is unfounded. An obviousness rejection requires the relevance of two pieces of prior art to be considerably closer than that. Why would one skilled in the art have needed or wanted to look to Merlin et al. after having read Miyazaki et al.? Is the Examiner taking the position that patterns of active material may not have worked that well? How does she know that? There is no mention of any problem with them in any of the references. So, why would one skilled in the art have been motivated to turn to Merlin et al. after having read Miyazaki et al.? In other words, the Miyazaki et al. invention is complete and functional in and of itself and not one needing to be "improved". The only reason the Applicants can think of as to why the Examiner has cited Merlin et al. as an improvement to Miyazaki et al.'s "identification marks" on a current collector is based on a motivation to reconstruct the claimed invention from a hindsight perspective. This, of course, is prohibited.

In that light, the Applicants partially agree with the Examiner's concluding statement on page 8 of the office action that she "does not believe that [providing a unique

37505.0281

- 14 -

identification code on a metal surface of an electrochemical cell] is novel, and certainly does not [believe] that it is non-obvious." However, to do so by etching an exposed portion of the current collector most certainly is.

Accordingly, amended independent claims 1 and 16 are allowable in light of the cited combination of prior art references. Claims 2, 4, 7, 8, 12, 17 to 24, 26 and 27 are patentable as hinging from allowable base claims.

Reconsideration of this rejection is requested.

2. Claims 9 to 11, 13 to 15 and 25 are rejected under 35 USC 103(a) as being unpatentable over Lessar et al. in view of Miyazuki et al. and Merlin et al. as applied to claims 1 and 7 above, and further in view of Gan et al. (U.S. Patent No. 6,790,561). Independent claim 13 has been amended in a similar manner as independent claims 1 and 16. In their presently amended forms, independent claims 1 and 16 cover subject matter that is patentable in light of Lessar et al. in view of Miyazaki et al. and Merlin et al. As pointed out by the Examiner, the Gan et al. patent teaches an electrode having two active materials with the following configuration: SVO/current collector/CF<sub>x</sub>/current collector/SVO. This teaching combined with the primary and secondary references does not bridge the gulf between the presently claimed invention and the prior art, as discussed in section 1 above.

Accordingly, independent claims 1 and 13 are allowable in light of the cited combination of prior art references. Claims 9 to 11, 14, 15 and 25 are patentable as hinging from allowable base claims.

Reconsideration of this rejection is requested.

37505.0281

- 15 -

It is believed that claims 1, 2, 4, 7 to 17 and 19 to 27 are in condition for allowance. Notice of Allowance is requested.

Respectfully Submitted,



Michael F. Scalise  
Reg. No. 34,920

Greatbatch, Inc.  
9645 Wehrle Drive  
Clarence, New York 14031  
(716) 759-5810  
March 15, 2007